and New Year's Day.

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* FILE 'USPAT' ENTERED AT 13:56:10 ON 11 FEB 1999

WELCOME T O THE U.S. PATENT TEXT FILE

=> s re-initiation or reinitiation?

211787 RE

71772 INITIATION

194 RE-INITIATION

(RE(W)INITIATION)

440 REINITIATION?

L1618 RE-INITIATION OR REINITIATION?

=> s 11 and translation

55536 TRANSLATION

90 L1 AND TRANSLATION L2

=> s 12 and expression vector?

82754 EXPRESSION

75087 VECTOR?

9528 EXPRESSION VECTOR?

(EXPRESSION (W) VECTOR?)

40 L2 AND EXPRESSION VECTOR? T.3

=> s 13 and marker?

42359 MARKER?

33 L3 AND MARKER? T.4

=> d 14,1-33,cit

- 1. 5,869,631, Feb. 9, 1999, Variant of LAV viruses; Marc Alizon, et al., 536/23.1; 435/235.1; 530/324, 350, 395 [IMAGE AVAILABLE]
- 5,866,784, Feb. 2, 1999, Recombinant plant expressing non-competitively binding insecticidal crystal proteins; Herman Van Mellaert, et al., 435/320.1, 419, 430; 536/23.71 [IMAGE AVAILABLE]
- 5,856,144, Jan. 5, 1999, Direct cloning of DNA fragments; Robert C. Mierendorf, et al., 435/91.2, 91.4, 320.1 [IMAGE AVAILABLE]
- 5,854,392, Dec. 29, 1998, .beta. APP-C100 receptor; Susan P. Manly, et al., 530/350; 435/69.1; 530/327, 395; 536/23.5 [IMAGE AVAILABLE]
- 5,854,037, Dec. 29, 1998, Recombinant negative strand RNA virus expression systems and vaccines; Peter Palese, et al., 435/69.1, 91.33, 235.1, 320.1; 530/350; 536/23.72 [IMAGE AVAILABLE]
- 5,840,520, Nov. 24, 1998, Recombinant negative strand RNA virus expression systems; David Kirkwood Clarke, et al., 435/69.1; 424/199.1;

- 7. 5,824,482, Oct. 20, 1998, Purification, cloning, and characterization of a novel human immunodeficiency virus LAV.sub.MAL; Marc Alizon, et al., 435/7.1; 424/188.1, 208.1; 435/5, 235.1 [IMAGE AVAILABLE]
- 8. 5,820,871, Oct. 13, 1998, Recombinant negative strand RNA virus expression systems and vaccines; Peter Palese, et al., 424/209.1, 206.1; 435/320.1 [IMAGE AVAILABLE]
- 9. 5,798,233, Aug. 25, 1998, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/97, 193 [IMAGE AVAILABLE]
- 10. 5,786,199, Jul. 28, 1998, Recombinant negative strand RNA virus expression systems and vaccines; Peter Palese, 435/239, 194, 235.1, 320.1, 456, 465; 536/23.1, 23.72 [IMAGE AVAILABLE]
- 11. 5,773,602, Jun. 30, 1998, DNA fragments obtained from a novel human immunodeficiency virus designated LAV.sub.MAL; Marc Alizon, et al., 536/23.72; 424/188.1; 536/23.1, 24.1 [IMAGE AVAILABLE]
- 12. 5,747,242, May 5, 1998, Diagnostic kits and methods for detecting antibodies to LAV viruses; Marc Alizon, et al., 435/5, 7.1, 7.9, 7.92, 7.94, 7.95, 974, 975; 436/518, 528, 531, 534; 530/324, 326, 328, 329, 350, 826 [IMAGE AVAILABLE]
- 13. 5,739,026, Apr. 14, 1998, DNA expression systems based on alphaviruses; Henrik Garoff, et al., 435/352, 320.1, 325; 536/23.72, 24.1 [IMAGE AVAILABLE]
- 14. 5,738,985, Apr. 14, 1998, Method for selective inactivation of viral replication; Vincent J. Miles, et al., 435/5, 6, 7.1, 254.2 [IMAGE AVAILABLE]
- 15. 5,733,779, Mar. 31, 1998, Impaired dominant selectable marker sequence and intronic insertion strategies for enhancement of expression of gene product and expression vector systems comprising same; Mitchell E. Reff, 435/320.1; 536/23.1, 24.1 [IMAGE AVAILABLE]
- 16. 5,716,834, Feb. 10, 1998, Cloned factor C cDNA of the Singapore horseshoe crab, Carcinoscorpius rotundicauda and purification of factor C proenzyme; Jeak Ling Ding, et al., 435/219, 252.33, 254.11, 320.1; 536/23.2 [IMAGE AVAILABLE]
- 17. 5,712,144, Jan. 27, 1998, Cloned factor C cDNA of the Singapore Horseshoe Crab, Carcinoscorpius rotundicauda and purification of Factor C proenzyme; Jeak Ling Ding, et al., 435/219; 424/94.63, 94.64, 522; 435/226 [IMAGE AVAILABLE]
- 18. 5,705,367, Jan. 6, 1998, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/97, 193 [IMAGE AVAILABLE]
- 19. 5,698,686, Dec. 16, 1997, Yeast telomerase compositions; Daniel E. Gottschling, et al., 536/23.1; 435/6, 91.2; 536/22.1, 24.3, 24.31, 24.33 [IMAGE AVAILABLE]
- 20. 5,695,954, Dec. 9, 1997, DNA encoding two fish neuropeptides; Nancy Gail McKeown Sherwood, et al., 435/69.1, 69.2, 69.4, 252.3, 320.1, 325, 365.1; 536/23.1, 23.51 [IMAGE AVAILABLE]
- 21. 5,648,267, Jul. 15, 1997, Impaired dominant selectable marker sequence and intronic insertion strategies for enhancement of expression of gene product and expression vector systems comprising same;

- Mitchell E. Reff, 435/320.1, 252.3, 325, 342, 352, 354, 357, 358, 364, 365, 369 [IMAGE AVAI
- 22. 5,578,473, Nov. 26, 1996, Recombinant negative strand RNA virus; Peter Palese, et al., 435/235.1, 236, 320.1 [IMAGE AVAILABLE]
- 23. 5,545,553, Aug. 13, 1996, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/252.33, 72, 193, 243, 320.1; 536/23.2 [IMAGE AVAILABLE]
- 24. 5,474,920, Dec. 12, 1995, Modified thermo-resistant DNA polymerases; Robb E. Moses, 435/194, 252.3; 536/23.2 [IMAGE AVAILABLE]
- 25. 5,436,139, Jul. 25, 1995, Non-passageable virus; William J. Rutter, et al., 435/69.3, 71.1, 252.33, 320.1; 530/350; 536/23.72, 24.1 [IMAGE AVAILABLE]
- 26. 5,378,806, Jan. 3, 1995, Fusion protein produced by retrovirus-mediated secretion; John W. Willis, 530/350; 435/69.7; 530/412; 536/23.4 [IMAGE AVAILABLE]
- 27. 5,252,465, Oct. 12, 1993, Avian erythroblastosis virus vectors for integration and expression of heterologous genes in avian cells; Victor-Marc Nigon, et al., 435/69.1, 239, 320.1, 349, 467 [IMAGE AVAILABLE]
- 28. 5,196,338, Mar. 23, 1993, Recombinant vectors for Haemophilus influenzae peptides and proteins; Algis Anilionis, et al., 435/252.3, 69.1, 69.7, 320.1; 530/350 [IMAGE AVAILABLE]
- 29. 5,175,099, Dec. 29, 1992, Retrovirus-mediated secretion of recombinant products; John W. Wills, 435/69.7, 252.3, 320.1; 530/350; 536/23.72 [IMAGE AVAILABLE]
- 30. 5,166,057, Nov. 24, 1992, Recombinant negative strand RNA virus expression-systems; Peter Palese, et al., 435/69.1, 194, 235.1, 320.1, 463 [IMAGE AVAILABLE]
- 31. 5,098,997, Mar. 24, 1992, Vaccines for Haemophilus influenzae; Algis Anilionis, et al., 530/350; 435/69.3, 69.7, 851; 530/405, 806, 825 [IMAGE AVAILABLE]
- 32. 5,034,511, Jul. 23, 1991, Variant of LAV viruses; Marc Alizon, et al., 530/326; 435/5, 235.1; 530/324, 350, 395 [IMAGE AVAILABLE]
- 33. 5,030,714, Jul. 9, 1991, Variant of LAV viruses; Marc Alizon, et al., 530/326; 435/5, 235.1; 530/350, 395 [IMAGE AVAILABLE]

=> d 15,21,clms

US PAT NO: 5,733,779 [IMAGE AVAILABLE] L4: 15 of 33

CLAIMS:

CLMS(1)

What is claimed is:

1. An expression vector for expressing a protein of interest by recombinant deoxyribonucleic acid techniques, said vector comprising at least one dominant selectable marker, wherein the translation initiation start site of said marker comprises the following sequence: ##STR28## where "Py" is a pyrimidine nucleotide; "x" is a nucleotide; and the numerical designations are relative to the codon

CLMS(2)

2. The **expression vector** of claim 1 wherein the vector comprises a nucleic add sequence encoding the protein of interest is co-linked to said dominant selectable **marker**.

CLMS(3)

3. The expression vector of claim 1 wherein said dominant selectable marker is selected from the group consisting of: herpes simplex virus thymidine kinase, adenosine deaminase, asparagine synthetase, Salmonella his D gene, xanthine guanine phosphoribosyl transferase, hygromycin B phosphotransferase, and neomycin phosphotransferase.

CLMS(4)

4. The expression vector of claim 1 wherein said translation initiation start site sequence is selected from the group consisting of TxxATGCxx; CxxATGCxx; CxxATGTxx; and TxxATGTxx, where "x" is a nucleotide, with the proviso that the codon "Txx" downstream of the ATG codon does not encode a stop codon.

CLMS(5)

5. The expression vector of claim 1 wherein said translation initiation start site sequence is TxxATGCxx, where "x" is a nucleotide.

CLMS(6)

6. The expression vector of claim 1 wherein said translation initiation start site sequence is TCCATGCTT.

CLMS(7)

7. The expression vector of claim 1 wherein said translation initiation start site sequence is located within a secondary structure.

CLMS(8)

8. The expression vector of claim 1 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 1000 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 1000 nucleotides.

CLMS (9)

9. The expression vector of claim 1 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 350 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 350 nucleotides.

CLMS (10)

10. The expression vector of claim 1 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 50 nucleotides of the ATG start codon of said start site; with the proviso that no in-frame stop codon is located within said 50 nucleotides.

CLMS (11)

11. The expression tor of claims 8, 9 or 10 where said out-of-frame start con is part of a consensus Kozak quence.

CLMS (12)

12. The expression vector of claim 10 wherein said out-of-frame start codon and said translation initiation start site sequence are both included as part of a secondary structure.

CLMS (13)

13. The expression vector of claims 8, 9 or 10 wherein said translation initiation start site sequence is part of a secondary structure and said out-of-frame start codon is not part of said secondary structure.

CLMS (14)

14. A dominant selectable marker encoded by a nucleic acid sequence, wherein the translation initiation start site of said dominant selectable marker is selected from the group consisting of TxxATGCxx; CxxATGCxx; CxxATGTxx; and TxxATGTxx, where "x" is a nucleotide, with the proviso that "Txx" downstream of the ATG codon does not encode a stop codon.

CLMS (15)

15. The marker of claim 14 wherein said dominant selectable marker is selected from the group consisting of herpes simplex virus thymidine kinase, adenosine deaminase, asparagine synthetase, Salmonella his D gene, xanthine guanine phosphoribosyl transferase, hygromycin B phosphotransferase, and neomycin phosphotransferase.

CLMS (16)

16. The marker of claim 14 wherein said translation initiation start site sequence is TxxATGCxx, where "x" is a nucleotide.

CLMS (17)

17. The marker of claim 14 wherein said translation initiation start site sequence is TCCATGCTT.

CLMS (18)

18. The marker of claim 14 wherein said translation initiation start site sequence is located within a secondary structure.

CLMS (19)

19. The marker of claim 14 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 1000 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 1000 nucleotides.

CLMS (20)

20. The marker of claim 14 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 350 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 350 nucleotides.

21. The marker of claim 14 wherein said translation initiation start site sequence further comprises at least one out-of-frame start codon within about 50 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 50 nucleotides.

CLMS (22)

22. The marker of claims 19, 20 and 21 wherein said out-of-frame start codon is part of a consensus Kozak sequence.

CLMS (23)

23. The marker of claim 21 wherein said out-of-frame start codon and said translation initiation start site sequence are both included as part of a secondary structure.

CLMS (24)

24. The marker of claims 19, 20, 21 wherein said translation initiation start site sequence is part of a secondary structure and said out-of-frame start codon is not part of said secondary structure.

CLMS (25)

25. An expression vector selected from the group consisting of ANEX 1 and ANEX 2.

CLMS (26)

26. A plasmid comprising the **expression vector** of claim 1 wherein the nucleic acid sequence encoding for said protein of interest is co-linked to said dominant selectable **marker**.

CLMS (27)

27. A mammalian host cell containing the plasmid of claim 26 wherein said plasmid is integrated within the cellular deoxyribonucleic acid of said mammalian host cell.

CLMS (28)

28. The mammalian host cell of claim 27 wherein said mammalian host cell is selected from the group consisting of DG44, DXB11, CV1, COS, R1610, SP2/O, P3x633-Ag8.653, BPA-1c1BPT, RAJI, and 293.

CLMS (29)

29. The expression vector of claim 1 further comprising an artificial intronic insertion region within said dominant selectable marker, wherein an encoding sequence for a protein of interest is located within said insertion region.

CLMS (30)

30. The dominant selectable **marker** of claim 14 further comprising an artificial instronic insertion region.

US PAT NO: 5,648,267 [IMAGE AVAILABLE] L4: 21 of 33

CLAIMS:

CLMS(1)

- is:
- 1. An expression vector which expresses at least one protein of interest in a recombinant host cell wherein said expression vector comprises:
  - (i) a translationally impaired neomycin phosphotransferase (NEO) dominant selectable marker gene which has been translationally impaired by modification of the region of the NEO gene which includes the NEO translation initiation start codon such that said modified region of the NEO gene which includes the NEO translation initiation start codon has the following nucleotide sequence:

CCA GCA TGG AGG A ATCGAT CC TCC ATG CTT (SEQ ID NO: 17) which translationally impaired NEO gene is operably linked to a promoter and polyadenylation sequence; and (ii) at least one heterologous DNA which encodes for at least one protein of interest, wherein said heterologous DNA is operably linked to a promoter and polyadenylation sequence different from the promoter and polydenylation sequence operably linked to the NEO gene, and wherein said heterologous DNA and said promoter and polyadenylation sequence operably linked to said heterologous are inserted into an intronic insertion region contained in the NEO gene.

#### CLMS(2)

2. The vector of claim 1 which further comprises a second dominant selectable marker gene.

#### CLMS(3)

3. The vector of claim 1 wherein the intronic insertion region is a synthetic intron sequence which is inserted between the CAG which encodes glycine at position 61 and the GAC which encodes aspartic acid at position 62 of the NEO gene.

#### CLMS (4)

4. The vector of claim 1 wherein the protein of interest is an antibody.

#### CLMS(5)

5. A recombinant host cell which contains the **expression vector** according to claim 1.

# CLMS(6)

6. A recombinant host cell which contains the expression vector according to claim 2.

#### CLMS(7)

7. A recombinant host cell which contains the expression vector according to claim 3.

## CLMS(8)

8. A recombinant host cell which contains the  ${\it expression vector}$  according to claim 4.

#### CLMS(9)

9. The recombinant host cell of claim 5 wherein said host cell is a mammalian cell.

- 10. The recombinant sost cell of claim 9 wherein said ammalian cell is a Chinese hamster ovary cell.
- => s reinitiation? and expression vector?

440 REINITIATION?

82754 EXPRESSION

75087 VECTOR?

9528 EXPRESSION VECTOR?

(EXPRESSION (W) VECTOR?)

L5 40 REINITIATION? AND EXPRESSION VECTOR?

=> s 15 and translation? reinitiation?

68787 TRANSLATION?

440 REINITIATION?

4 TRANSLATION? REINITIATION? (TRANSLATION? (W) REINITIATION?)

L6 3 L5 AND TRANSLATION? REINITIATION?

=> d 16, 1-3, cit, ab

1. 5,856,144, Jan. 5, 1999, Direct cloning of DNA fragments; Robert C. Mierendorf, et al., 435/91.2, 91.4, 320.1 [IMAGE AVAILABLE]

US PAT NO:

5,856,144 [IMAGE AVAILABLE]

L6: 1 of 3

# ABSTRACT:

A vector for the direct cloning of the products of PCR protocol incorporates single nucleotide overhangs at one or both ends of a linearized DNA segment. The single nucleotide overhangs are uracil or inosine residues, as desired, to facilitate cloning of the desired PCR products.

2. 5,759,852, Jun. 2, 1998, Expression vector containing PL6M promoter and TAT32 ribosome binding site and host cells transformed therewith; Richard J. Kirschner, et al., 435/320.1, 252.8; 536/24.1 [IMAGE AVAILABLE]

US PAT NO:

5,759,852 [IMAGE AVAILABLE]

L6: 2 of 3

### ABSTRACT:

Disclosed are expression vectors useful as vectors in recombinant methods to facilitate expression of exogenous genes in E. coli. Specifically, the disclosed expression vector has the following elements in operable linkage: the PL6m promoter, the TAT32 ribosome binding site and a gene encoding a heterologous polypeptide, Also disclosed are E. coli host cells transformed with this expression vector.

3. 5,510,256, Apr. 23, 1996, Eliminating internal initiation of soluble CD4 gene; Richard J. Kirschner, et al., 435/91.41, 69.1, 70.1, 252.3, 320.1; 536/23.5, 24.1 [IMAGE AVAILABLE]

US PAT NO:

5,510,256 [IMAGE AVAILABLE]

L6: 3 of 3

# ABSTRACT:

The present invention is based upon the discovery that proteins made from genes that include the CD4 sequence in its cDNA can make additional polypeptides as a result of internal translation initiation. This invention is thus directed to DNA sequences which eliminate internal initiation expression in sCD4.

US PAT NO:

5,759,852 [IMAGE AVAILABLE]

TITLE:

Expression vector containing PL6M promoter and

TAT32 ribosome binding site and host cells transformed

L6: 2 of 3

therewith

#### ABSTRACT:

Disclosed are expression vectors useful as vectors in recombinant methods to facilitate expression of exogenous genes in E. coli. Specifically, the disclosed expression vector has the following elements in operable linkage: the PL6m promoter, the TAT32 ribosome binding site and a gene encoding a heterologous polypeptide, Also disclosed are E. coli host cells transformed with this expression vector.

SUMMARY:

BSUM (10)

The . . . Res. 10:2971-2996; Schneider, T., et al. (1986)
"Information Content of Binding Sites on Nucleotide Sequences." J. Mol. Biol. 188:415-431). Additionally, translation reinitiation can occur if a translational start signal overlaps (Oppenheim, D., and Yanofsky, C. (1980) "Translational Coupling During the Expression of. . (Steitz, J. (1979) "Genetic signals and nucleotide sequences in messenger RNA." In "Biological Regulation and Development. 1. Gene Expression.") Such reinitiation does not require a Shine-Dalgarno sequence and differs from the intragenic initiation discussed herein.

CLAIMS:

CLMS(1)

We claim:

1. An **expression vector** comprising the following elements in operable linkage: the P.sub.L6m promoter, the TAT32 ribosome binding site and a gene encoding a. . .

CLAIMS:

CLMS(2)

2. The **expression vector** of claim 1 wherein the gene encodes sCD4-PE40.

CLAIMS:

CLMS(3)

3. The expression vector of claim 1 which is pUC1456.

CLAIMS:

CLMS (4)

4. An E. coli host cell transformed with the expression vector of claim 1.

LIGHT set on as ' ' ? begin 5,6,55,154,155,156,312,399,biotech,biosci

Set Items Description ? s reinitiation? and translation? 5265 REINITIATION? 473331 TRANSLATION? 913 REINITIATION? AND TRANSLATION? ? s s1 and expression vector? 913 S1 4669 EXPRESSION VECTOR? 0 S1 AND EXPRESSION VECTOR? **S2** ? s s1 and vector? 913 S1 793456 VECTOR? 70 S1 AND VECTOR? ? s s3 and expression 70 S3 3149954 EXPRESSION 48 S3 AND EXPRESSION ? rd s4 >>>Duplicate detection is not supported for File 60. >>>Records from unsupported files will be retained in the RD set. ...completed examining records S5 27 RD S4 (unique items) ? d s5/3/1-27Display 5/3/1 (Item 1 from file: 5) DIALOG(R) File 5:BIOSIS PREVIEWS(R) (c) 1999 BIOSIS. All rts. reserv. 10107346 BIOSIS NO.: 199698562264 Phage RNA polymerase vectors that allow efficient gene expression in both prokaryotic and eukaryotic cells. AUTHOR: He Biao; McAllister William T; Durbin Russell K(a) AUTHOR ADDRESS: (a) Dep. Microbiol. Immunol., SUNY Health Sci. Center Brooklyn, 450 Clarkson Ave., Brooklyn, NY 1120, USA JOURNAL: Gene (Amsterdam) 164 (1):p75-79 1995 ISSN: 0378-1119 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English - end of record -? Display 5/3/2 (Item 2 from file: 5) DIALOG(R) File 5:BIOSIS PREVIEWS(R) (c) 1999 BIOSIS. All rts. reserv. BIOSIS NO.: 000094107617 08377113 TRANSLATION OF THE RAT LINE BICISTRONIC RNAS IN-VITRO INVOLVES

AUTHOR: ILVES H; KAHKE O; SPEEK M

AUTHOR ADDRESS: DEP. MOLECULAR BIOLOGY, TARTU UNIVERSITY, 2 JAKOBI STREET,

TARTU 202400, ESTONIA.

JOURNAL: MOL CELL BIOL 12 (9). 1992. 4242-4248. FULL JOURNAL NAME: Molecular and Cellular Biology

CODEN: MCEBD

RECORD TYPE: Abstract LANGUAGE: ENGLISH

- end of record -

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Display 5/3/3 (Item 3 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

07259200 BIOSIS NO.: 000090039076
TGATG VECTOR A NEW EXPRESSION SYSTEM FOR CLONED FOREIGN GENES
IN ESCHERICHIA-COLI CELLS

AUTHOR: MASHKO S V; VEIKO V P; LAPIDUS A L; LEBEDEVA M I; MOCHULSKY A V; SHECHTER I I; TRUKHAN M E; RATMANOVA K I; REBENTISH B A; ET AL AUTHOR ADDRESS: INST. GENETICS SELECTION INDUS. MICROORGANISM, 113545, FIRST DOROZHNYJ PR., 1A, MOSCOW, USSR.

JOURNAL: GENE (AMST) 88 (1). 1990. 121-126.

FULL JOURNAL NAME: GENE (Amsterdam)

CODEN: GENED

RECORD TYPE: Abstract LANGUAGE: ENGLISH

- end of record -

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Display 5/3/4 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

06584390 BIOSIS NO.: 000087026551
SIGNALS IMPORTANT FOR HIGH-LEVEL EXPRESSION OF FOREIGN GENES IN AUTOGRAPHA-CALIFORNICA NUCLEAR POLYHEDROSIS VIRUS EXPRESSION VECTORS

AUTHOR: LUCKOW V A; SUMMERS M D

AUTHOR ADDRESS: DEP. ENTOMOL., TEXAS A AND M UNIV., AND TEXAS AGRIC. EXPERIMENT STN., COLL. STN., TEXAS 77843-2475.

JOURNAL: VIROLOGY 167 (1). 1988. 56-71.

FULL JOURNAL NAME: Virology

CODEN: VIRLA

RECORD TYPE: Abstract LANGUAGE: ENGLISH

- end of record -

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Display 5/3/5 (Item 5 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

06562359 BIOSIS NO.: 000087004520

EXPRESSION OF THE BISPHOSPHATASE DOMAIN OF RAT LIVER 6

AUTHOR: TAULER A; ROSENBERG A H; COLOSIA A; STUDIER F W, PILKIS S J AUTHOR ADDRESS: DEP. PHYSIOL. BIOPHYS., STATE UNIV. N.Y. STONY BROOK, STONY BROOK, N.Y. 11794.

JOURNAL: PROC NATL ACAD SCI U S A 85 (18). 1988. 6642-6646.

FULL JOURNAL NAME: Proceedings of the National Academy of Sciences of the

United States of America

CODEN: PNASA

RECORD TYPE: Abstract LANGUAGE: ENGLISH

- end of record -

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Display 5/3/6 (Item 6 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

05477189 BIOSIS NO.: 000033078042

EXPRESSION OF HUMAN PANCREATIC POLYPEPTIDE PRECURSORS FROM A DICISTRONIC MESSENGER RNA IN MAMMALIAN CELLS

AUTHOR: BOEL E; BERKNER K L; NEXO B A; SCHWARTZ T W AUTHOR ADDRESS: NOVO RES. INST., LAB. GENETICS, DK-2880 BAGSVAERD-COPENHAGEN, DEN.

JOURNAL: FEBS (FED EUR BIOCHEM SOC) LETT 219 (1). 1987. 181-188.

FULL JOURNAL NAME: FEBS (Federation of European Biochemical Societies)

Letters

CODEN: FEBLA

RECORD TYPE: Citation LANGUAGE: ENGLISH

- end of record -

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Display 5/3/7 (Item 7 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

05230257 BIOSIS NO.: 000082070879
TERMINATION-REINITIATION OCCURS IN THE TRANSLATION OF MAMMALIAN CELL MESSENGER RNA

AUTHOR: PEABODY D S; BERG P

AUTHOR ADDRESS: DEP. OF CELL BIOL., CANCER RES. AND TREATMENT CENT., UNIV. OF NM, ALBUQUERQUE, NEW MEXICO 87131.

JOURNAL: MOL CELL BIOL 6 (7). 1986. 2695-2703. FULL JOURNAL NAME: Molecular and Cellular Biology

CODEN: MCEBD

RECORD TYPE: Abstract LANGUAGE: ENGLISH

- end of record -

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Display 5/3/8 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)
(c) format only 1999 Dialog Corporation. All rts. reserv.

08662373 96332659

mRNA sequences influencing translation and the selection of AUG

```
initiator codons in the yeast Saccharomyces cerevisiae
Yun DF; Laz TM; Clarkts JM; Sherman F
  Department of Biochemistry, University of Rochester, School of Medicine
and Dentistry, New York 14642, USA.
  Mol Microbiol (ENGLAND)
                            Mar 1996, 19 (6) p1225-39, ISSN 0950-382X
Journal Code: MOM
  Contract/Grant No.: T32 GM07098, GM, NIGMS; R01 GM12702, GM, NIGMS
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE
                                  - end of record -
?
      Display 5/3/9
                        (Item 1 from file: 312)
DIALOG(R) File 312:CA SEARCH(R)
(c) 1997 American Chemical Society. All rts. reserv.
               CA: 111(1)2107z
                                  JOURNAL
  111002107
  High level expression of nonfused foreign genes with Autographa
californica nuclear polyhedrosis virus expression vectors
  AUTHOR(S): Luckow, Verne A.; Summers, Max D.
  LOCATION: Dep. Entomol., Texas A and M Univ., College Station, TX,
77843-2475, USA
  JOURNAL: Virology DATE: 1989 VOLUME: 170 NUMBER: 1 PAGES: 31-9
  CODEN: VIRLAX ISSN: 0042-6822 LANGUAGE: English
                                  - end of record -
?
      Display 5/3/10
                          (Item 1 from file: 399)
DIALOG(R) File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.
  126234445
               CA: 126(18)234445w
                                      PATENT
  Retroviral expression systems involving translation reinitiation for
selectable marker gene expression from desired gene-marker gene mRNA
  INVENTOR (AUTHOR): Collins, Mary Katharine Levinge; Weiss, Robin Anthony;
Takeuchi, Yasuhiro; Cosset, Francois-Lois
  LOCATION: UK,
  ASSIGNEE: Cancer Research Campaign Technology Limited; Collins, Mary
Katharine Levinge; Weiss, Robin Anthony; Takeuchi, Yasuhiro; Cosset,
Francois-Lois
  PATENT: PCT International; WO 9708330 Al DATE: 19970306
 APPLICATION: WO 96GB2061 (19960823) *GB 9517263 (19950823)
  PAGES: 76 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-015/86A;
C12N-005/10B; C12N-015/67B DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BB;
BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; HU; IL; IS; JP;
KE; KG; KP; KR; KZ; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ;
PL; PT; RO; RU; SD; SE; SG; SI; SK; TJ; TM; TR; TT; UA; UG; US; UZ; VN; AM;
                                     -more-
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                         (Item 1 from file: 399)
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DIALOG(R) File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.
AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: KE; LS; MW; SD; SZ; UG
; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF;
BJ; CF; CG; CI; CM
                                 - end of record -
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                         (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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          Genuine Article#: XT844 No. References:
Title: Requirement of a limited segment of the sog gene for plasmid R64
    conjugation
Author(s): Narahara K (REPRINT); Rahman E; Furuya N; Komano T
Corporate Source: TOKYO METROPOLITAN UNIV, DEPT BIOL/HACHIOJI/TOKYO
    19203/JAPAN/ (REPRINT)
Journal: PLASMID, 1997, V38, N1, P1-11
                Publication date: 19970000
ISSN: 0147-619X
Publisher: ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS, 525 B ST, STE 1900,
    SAN DIEGO, CA 92101-4495
Language: English Document Type: ARTICLE
                                             (ABSTRACT AVAILABLE)
                                 - end of record -
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      Display 5/3/12
                        (Item 2 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
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05967435
          Genuine Article#: XL098
                                   No. References: 18
Title: Purification of active Escherichia coli ribosome recycling factor
    (RRF) from an osmo-regulated expression system
Author(s): MacDougall J; HolstHansen P; Mortensen KK; Freistroffer DV;
    Pavlov MY; Ehrenberg M; Buckingham RH (REPRINT)
Corporate Source: INST BIOL PHYS CHIM, CNRS, UPR 9073, 13 RUE PIERRE & MARIE
    CURIE/F-75005 PARIS//FRANCE/ (REPRINT); INST BIOL PHYS CHIM, CNRS, UPR
    9073/F-75005 PARIS//FRANCE/; AARHUS UNIV, DEPT CHEM/DK-8000 AARHUS
    C//DENMARK/; UPPSALA UNIV, DEPT MOL BIOL, BMC/S-75124 UPPSALA//SWEDEN/
Journal: BIOCHIMIE, 1997, V79, N5 (MAY), P243-246
                Publication date: 19970500
ISSN: 0300-9084
Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 141 RUE JAVEL, 75747
    PARIS CEDEX 15, FRANCE
Language: English Document Type: ARTICLE
                                             (ABSTRACT AVAILABLE)
                                 - end of record -
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      Display 5/3/13
                       (Item 3 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
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                                    No. References: 43
04459737
          Genuine Article#: TE366
Title: HIGH-TITER PACKAGING CELLS PRODUCING RECOMBINANT RETROVIRUSES
    RESISTANT TO HUMAN SERUM
Author(s): COSSET FL; TAKEUCHI Y; BATTINI JL; WEISS RA; COLLINS MKL
Corporate Source: INST CANC RES, CHESTER BEATTY LABS, 237 FULHAM RD/LONDON
    SW3 6JB//ENGLAND/; INST CANC RES, CHESTER BEATTY LABS/LONDON SW3
    6JB//ENGLAND/; UNIV LYON 1, CNRS, UMR 106, CTR GENET MOLEC &
    CELLULAIRE/F-69622 VILLEURBANNE//FRANCE/; INST PASTEUR, RETROVIRUS &
    TRANSFER GENET LAB, CNRS, URA 1157/F-75724 PARIS 15//FRANCE/
Journal: JOURNAL OF VIROLOGY, 1995, V69, N12 (DEC), P7430-7436
ISSN: 0022-538X
Language: ENGLISH Document Type: ARTICLE
                                             (Abstract Available)
                                 - end of record -
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     Display 5/3/14
                         (Item 4 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
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04402097 Genuine Article#: TA617 No. References: 52 Title: MODULATION OF TRNA(I)(MET), EIF-2, AND EIF-2B EXPRESSION SHOWS

THAT GCN4 TRANSLATION IS INVERSELY COUPLED TO THE LEVEL OF P-CENTER-DOT-MET-TRNA(I)(MET) EIF-2-CENTER-DOT P-CENTER-DOT-MET-TRNA(I) (MET) NARY COMP.
Author(s): DEVER TE; ANG WM; ASTROM S; BYSTROM AS; H. EBUSCH AG EIF-2-CENTER-DOT NARY COMPLEXES Corporate Source: NICHHD, MOLEC GENET LAB, MOLEC GENET LOWER EUKARYOTES SECT/BETHESDA//MD/20892; NICHHD, MOLEC GENET LAB, MOLEC GENET LOWER EUKARYOTES SECT/BETHESDA//MD/20892; UMEA UNIV, DEPT MICROBIOL/S-90187 UMEA//SWEDEN/ Journal: MOLECULAR AND CELLULAR BIOLOGY, 1995, V15, N11 (NOV), P6351-6363 ISSN: 0270-7306 Language: ENGLISH Document Type: ARTICLE (Abstract Available) - end of record -? Display 5/3/15 (Item 5 from file: 34) DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv. No. References: 53 Genuine Article#: RM081 Title: GCD10, A TRANSLATIONAL REPRESSOR OF GCN4, IS THE RNA-BINDING SUBUNIT OF EUKARYOTIC TRANSLATION INITIATION FACTOR-III Author(s): GARCIABARRIO MT; NARANDA T; DEALDANA CRV; CUESTA R; HINNEBUSCH AG; HERSHEY JWB; TAMAME M Corporate Source: UNIV SALAMANCA, FAC BIOL, INST MICROBIOL BIOQUIM, CONSEJO SUPER INVEST CIENTIF/E-37008 SALAMANCA//SPAIN/; UNIV SALAMANCA, FAC BIOL, INST MICROBIOL BIOQUIM, CONSEJO SUPER INVEST CIENTIF/E-37008 SALAMANCA//SPAIN/; NICHHD, MOLEC GENET LOWER EUKARYOTES SECT, GENET MOLEC LAB/BETHESDA//MD/20892; UNIV CALIF DAVIS, SCH MED, DEPT BIOL CHEM/DAVIS//CA/95616 Journal: GENES & DEVELOPMENT, 1995, V9, N14 (JUL 15), P1781-1796 ISSN: 0890-9369 Language: ENGLISH Document Type: ARTICLE (Abstract Available) - end of record -? Display 5/3/16 (Item 6 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv. Genuine Article#: JJ828 No. References: 34 Title: DYSTROPHIN IN FRAMESHIFT DELETION PATIENTS WITH BECKER MUSCULAR-DYSTROPHY Author(s): GANGOPADHYAY SB; SHERRATT TG; HECKMATT JZ; DUBOWITZ V; MILLER G; SHOKEIR M; RAY PN; STRONG PN; WORTON RG Corporate Source: HOSP SICK CHILDREN, DEPT GENET, 555 UNIV AVE/TORONTO M5G 1X8/ONTARIO/CANADA/; HOSP SICK CHILDREN, DEPT GENET, 555 UNIV AVE/TORONTO M5G 1X8/ONTARIO/CANADA/; UNIV SASKATCHEWAN HOSP, DEPT PEDIAT, DIV MED GENET/SASKATOON S7N 0W8/SASKATCHEWAN/CANADA/; HOSP SICK CHILDREN, RES INST/TORONTO M5G 1X8/ONTARIO/CANADA/; UNIV TORONTO, DEPT MOLEC & MED GENET/TORONTO M5S1A1/ONTARIO/CANADA/; HAMMERSMITH HOSP, ROYAL POSTGRAD MED SCH, JERRY LEWIS MUSCLE RES CTR, DEPT PEDIAT & NEONATAL MED/LONDON W12 OHS//ENGLAND/; UNIV HOSP HERSHEY, PENN STATE COLL MED, DEPT PEDIAT, DIV NEUROL/HERSHEY//PA/00000 Journal: AMERICAN JOURNAL OF HUMAN GENETICS, 1992, V51, N3 (SEP), P562-570 ISSN: 0002-9297 -more-? Display 5/3/16 (Item 6 from file: 34) DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv.

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Display 5/3/17 (Item 7 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv.

01789556 Genuine Article#: JB278 No. References: 45

Title: REPLICATION CONTROL OF PLASMID-R1 - REPA SYNTHESIS IS REGULATED BY

COPA RNA THROUGH INHIBITION OF LEADER PEPTIDE TRANSLATION

Author(s): BLOMBERG P; NORDSTROM K; WAGNER EGH

Corporate Source: UNIV UPPSALA, CTR BIOMED, DEPT MICROBIOL, BOX 581/S-75123

UPPSALA//SWEDEN/

Journal: EMBO JOURNAL, 1992, V11, N7 (JUL), P2675-2683

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- end of record -

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Display 5/3/18 (Item 8 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv.

01658412 Genuine Article#: HP817 No. References: 49

Title: THE FULL-LENGTH TRANSCRIPT OF A CAULIMOVIRUS IS A POLYCISTRONIC

MESSENGER-RNA WHOSE GENES ARE TRANS ACTIVATED BY THE PRODUCT OF GENE-VI

Author(s): SCHOLTHOF HB; GOWDA S; WU FC; SHEPHERD RJ

Corporate Source: UNIV KENTUCKY, DEPT PLANT PATHOL/LEXINGTON//KY/40546; UNIV

KENTUCKY, DEPT PLANT PATHOL/LEXINGTON//KY/40546

Journal: JOURNAL OF VIROLOGY, 1992, V66, N5 (MAY), P3131-3139 Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- end of record -

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Display 5/3/19 (Item 9 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv.

01203932 Genuine Article#: GD893 No. References: 26

Title: IMPROVED VECTORS FOR STABLE EXPRESSION OF FOREIGN GENES

IN MAMMALIAN-CELLS BY USE OF THE UNTRANSLATED LEADER SEQUENCE FROM EMC VIRUS

Author(s): KAUFMAN RJ; DAVIES MV; WASLEY LC; MICHNICK D

Corporate Source: GENET INST,87 CAMBRIDGE PK DR/CAMBRIDGE//MA/02140

Journal: NUCLEIC ACIDS RESEARCH, 1991, V19, N16, P4485-4490

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- end of record -

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Display 5/3/20 (Item 10 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 1999 Inst for Sci Info. All rts. reserv.

00351675 Genuine Article#: DK854 No. References: 49 Title: SCANNING MODEL FOR TRANSLATIONAL REINITIATION IN EUBACTERIA

Author(s): ADHIN MR; VANDUIN J

Corporate Source: LEIDEN STATE UNIV, GORLAEUS LABS, DEPT BIOCHEM, POB

9502/2300 RA LEIDEN//NETHERLANDS/; LEIDEN STATE UNIV, GORLAEUS LABS, DEPT

BIOCHEM, POB 9502/2300 RA LEIDEN//NETHERLANDS/

Journal: JOURNAL OF MOLECULAR BIOLOGY, 1990, V213, N4, P811-818

Language: ENGLISH Document Type: ARTICLE

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Display 5/3/21
                       (Item 1 from file: 357)
DIALOG(R) File 357: Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.
0210442 DBA Accession No.: 97-05563
                                        PATENT
Retro virus packaging cell line and expression constructs, comprising
    selectable marker gene downstream of gene of interest - retro virus
    vector and packaging cell culture for use in gene therapy
AUTHOR: Collins M K L; Weiss R A; Takeuchi Y; Cosset F L
CORPORATE SOURCE: London, UK.
PATENT ASSIGNEE: Cancer-Res.Campaign-Technol. 1997
PATENT NUMBER: WO 9708330 PATENT DATE: 970306 WPI ACCESSION NO.:
    97-179287 (9716)
PRIORITY APPLIC. NO.: GB 9517263 APPLIC. DATE: 950823
NATIONAL APPLIC. NO.: WO 96GB2061 APPLIC. DATE: 960823
LANGUAGE: English
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      Display 5/3/22
                        (Item 2 from file: 357)
DIALOG(R) File 357: Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.
0152830 DBA Accession No.: 93-10882
Efficient expression of human interleukin-1-alpha gene in Escherichia
    coli under the control of a T7 RNA-polymerase-derived system - gene
    cloning using TGATG overlappon vector plasmid
    pET-TGATG-hIL-1-alpha
AUTHOR: Lebedeva M I; Tsyba N A; Kotenko S V; Epishin S M; Lomakin I B;
    Vinetski Y P
CORPORATE SOURCE: Institute for Genetics and Selection of Industrial
    Microorganisms, Moscow, 113545, Russia.
JOURNAL: Biotekhnologiya (4, 18-25) 1993
CODEN: BTKNEZ
LANGUAGE: English
                                 - end of record -
?
     Display 5/3/23
                        (Item 3 from file: 357)
DIALOG(R) File 357: Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.
0082929 DBA Accession No.: 89-00920
Vectors for in vitro synthesis of poly(A)+RNA transcripts - maize
    zein seed storage protein gene cloning and expression;
   microinjection in Xenopus laevis oocyte; vector construction
AUTHOR: Hoffman L M; Donaldson D D
CORPORATE AFFILIATE: Agrigenetics
CORPORATE SOURCE: Agrigenetics Advanced Science Co., 5649 E. Buckeye Road,
   Madison, WI 53716, USA.
JOURNAL: Gene (67, 1, 137-40) 1988
CODEN: GENED6
LANGUAGE: English
                                 - end of record -
     Display 5/3/24
                         (Item 1 from file: 370)
DIALOG(R) File 370: Science
(c) 1999 AAAS. All rts. reserv.
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00506457 (USE 9 F FULLTEXT) Promotion of Met-tRNA.inf(i).sup(Met) Binding to Ribosomes by yIF2, a Bacterial IF2 Homolog in Yeast Choi, Sang Ki; Lee, Joon H.; Zoll, Wendy L.; Merrick, William C.; Dever, Thomas E. S. K. Choi, J. H. Lee, T. E. Dever, Laboratory of Eukaryotic Gene Regulation, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD 20892-2716, USA.; W. L. Zoll and W. C. Merrick, Department of Biochemistry, Case Western Reserve University, Cleveland, OH 44106, USA. Science Vol. 280 5370 pp. 1757 Publication Date: 6-12-1998 (980612) Publication Year: 1998 Document Type: Journal ISSN: 0036-8075 Language: English Section Heading: Reports Word Count: 2691 - end of record -? Display 5/3/25 (Item 1 from file: 434) DIALOG(R) File 434:SciSearch(R) Cited Ref Sci (c) 1998 Inst for Sci Info. All rts. reserv. 09614710 Genuine Article#: AG839 No. References: 32 Title: TRANSLATIONAL REINITIATION IN THE PRESENCE AND ABSENCE OF A SHINE AND DALGARNO SEQUENCE Author(s): SPANJAARD RA; VANDUIN J Corporate Source: UNIV LEIDEN, GORLAEUS LABS, DEPT BIOCHEM, EINSTEINWEG 5/2333 CC LEIDEN//NETHERLANDS/; UNIV LEIDEN, GORLAEUS LABS, DEPT BIOCHEM, EINSTEINWEG 5/2333 CC LEIDEN//NETHERLANDS/ Journal: NUCLEIC ACIDS RESEARCH, 1989, V17, N14, P5501-5507 Language: ENGLISH Document Type: ARTICLE - end of record -? (Item 2 from file: 434) Display 5/3/26 DIALOG(R) File 434:SciSearch(R) Cited Ref Sci (c) 1998 Inst for Sci Info. All rts. reserv. Genuine Article#: C9356 No. References: 58 Title: TERMINATION-REINITIATION OCCURS IN THE TRANSLATION OF MAMMALIAN-CELL MESSENGER-RNAS Author(s): PEABODY DS; BERG P Corporate Source: STANFORD UNIV, MED CTR, DEPT BIOCHEM/STANFORD//CA/94305 Journal: MOLECULAR AND CELLULAR BIOLOGY, 1986, V6, N7, P2695-2703 Language: ENGLISH Document Type: ARTICLE - end of record -? Display 5/3/27 (Item 1 from file: 35) DIALOG(R) File 35: Dissertation Abstracts Online (c) 1999 UMI. All rts. reserv. 896061 ORDER NO: AAD85-21216 GENETIC BARRIERS TO THE HETEROLOGOUS GENE EXPRESSION IN BACILLUS SUBTILIS (CAT) Author: LIN, CHIH-KAI J. Degree: PH.D. 1985 Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, DAVIS (0029)

Source: VOLUME 46/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

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06584390 BIOSIS NO.: 000087026551
SIGNALS IMPORTANT FOR HIGH-LEVEL EXPRESSION OF FOREIGN GENES IN AUTOGRAPHA-CALIFORNICA NUCLEAR POLYHEDROSIS VIRUS EXPRESSION VECTORS

AUTHOR: LUCKOW V A; SUMMERS M D

AUTHOR ADDRESS: DEP. ENTOMOL., TEXAS A AND M UNIV., AND TEXAS AGRIC.

EXPERIMENT STN., COLL. STN., TEXAS 77843-2475.

JOURNAL: VIROLOGY 167 (1). 1988. 56-71.

FULL JOURNAL NAME: Virology

CODEN: VIRLA

RECORD TYPE: Abstract LANGUAGE: ENGLISH

ABSTRACT: The transcriptional and translational signals required for

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efficient expression of the chloramphenical acetyltransferase, .beta.-galactosidase, and tissue plasminogen activator genes, under the control of the polyhedrin promoter in Spodoptera frugiperda cells infected with Autographa californica nuclear polyhedrosis virus, were investigated by SDS-PAGE and RNA dot blot analysis. The recombinant baculoviruses all contained alterations in the leader sequence or 5' proximal coding region of the polyhedrin gene. Highest levels of foreign proteins and polyhedrin-linked mRNA were observed when portions of the coding sequence of the polyhedrin gene were fused in phase with the foreign gene. Recombinant viruses in which the foreign gene was inserted upstream from the polyhedrin ATG start codon expressed nonfused products but at lower levels than constructs which produced fusion proteins. A corresponding decrease in the levels of mRNAs produced by such constructs was also observed. Some constructs in which the foreign gene was inserted out of phase downstream from the polyhedrin start codon expressed nonfused protein products at low levels but produced polyhedrin-linked mRNA at levels comparable to vectors which produced protein

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fusions. These data suggest that **reinitiation** of **translation** can take place at AUG start codons a short distance downstream from the primary polyhedrin start codon. These results indicate that sequences immediately upstream from the polyhedrin start codon are important for regulation of transcription and that additional sequences near the AUG start codon can have a dramatic influence on the levels of

translation observed.

DESCRIPTORS: SPODOPTE-A-FRUGIPERDA CELLS CHLORAMPHENICAL ACETYLTRANSFERASE GENE BETA GALACTOSIDASE GENE TISSUE PLASMINOGEN ACTIVATOR GENE TRANSCRIPTION TRANSLATION POLYHEDRIN GENE REGIONS CONCEPT CODES:

03502 Genetics and Cytogenetics-General 03506 Genetics and Cytogenetics-Animal

10062 Biochemical Studies-Nucleic Acids, Purines and Pyrimidines

10300 Replication, Transcription, Translation

10506 Biophysics-Molecular Properties and Macromolecules

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